Participation in the community of scientific practice

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Participation in the community of scientific practice

- Motivational aspects of project work in large enrolment classes

Introduction

An increasing number of students enrolled at the universities every year results in a greatly diverse student mass. This poster introduces a study element **'The First Year Project'** from the University of Southern Denmark. This intensive project based course is designed to embrace several aspects of students' motivation as well as their **diversity and plurality**.

The 'The First Year Project' is popular among both students and teachers as it gives an **authentic glimpse of scientific research** complete with the subsequent dissemination of knowledge.

The First Year Project

The First Year Project is a mandatory 10 ECTS course at the end of first year of studies at The Faculty of Science. During three months the students conduct a (real) **research project**. The students prioritise projects from a broad selection of abstracts and are assigned projects in groups of three-six students. At the end of the course, the students hand in a group report and present their results in a **poster session**. Prizes are given for the best posters. The course is completed with an oral individual exam.

Mini-courses and mid-way seminar

The students are offered a range of mini-courses in e.g. 'writing scientific reports' and 'making posters'. A mid-way seminar with **peer feedback** on presentations of the projects' progression helps the groups taking stock on their project and getting inspired by the ideas of other groups.

Participants in 2014

In all **529 persons** were involved in the First Year Project in spring 2014: **371 students**, 83 main supervisors, 42 co-supervisors, 15 mini course teachers, 16 poster session judges and two administrators.

Course evaluation

The First Year Project was assessed by the students in a pilot study questionnaire covering several aspects including motivational elements. The response rate was 48 %. Selected results are seen in the box 'Students' experiences - a pilot study'.

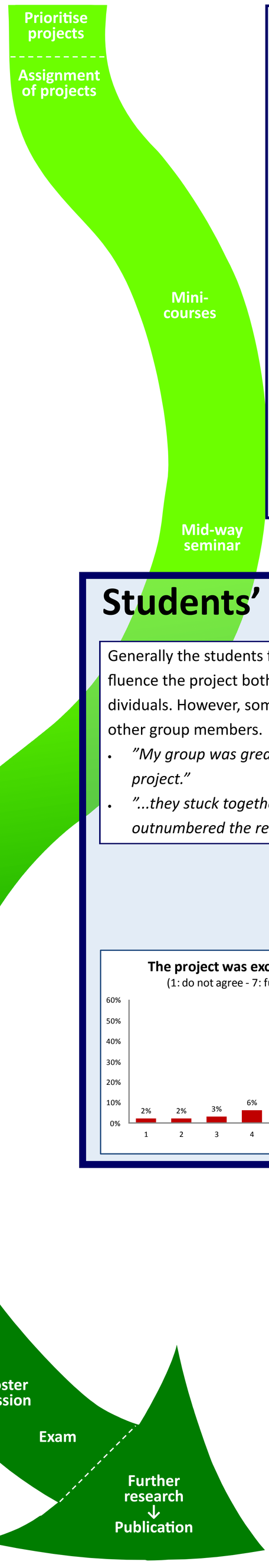
Community of practice

In compliance with the idea of legitimate peripheral participation (Lave and Wegner, 1991), the students are invited into the world of scientific research by their supervisor. Through The First Year Project the students are taking their first step towards membership of the scientific community of practice.

The project constitutes authentical research based teaching to a larger extent than teaching traditionally offers at undergraduate level.

A student describes

"The First Year Project is a great way to get a sense of what it is to do research and to focus on a specific subject. It is a really good way to finish the first year of studies..."



Motivational theories

With inspiration from Deci and Ryan's (1985) and Eccles and Wigfield's (1995) theories of motivation the objective is to create:

Sense of autonomy: Choosing subject and deciding course of action.

Feeling of competence: Using knowledge to perform actual research and convey this in a report and a poster.

Sense of relatedness: Group work and relations to supervisors and research groups.

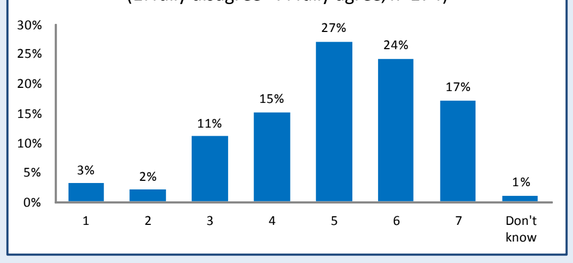
Positive task value: Working with interests, doing authentic research and making contributions to an actual research project.

Students' experiences - a pilot study

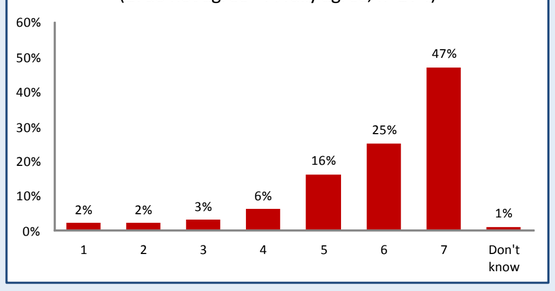
Generally the students felt that they could influence the project both as groups and as individuals. However, some felt dominated by other group members.

- *"My group was greatly free to shape the project."*
- *"...they stuck together in all decisions and outnumbered the rest of us..."*

I felt academically prepared to work on the project
(1: fully disagree - 7: fully agree, n=174)



The project was exciting/interesting
(1: do not agree - 7: fully agree, n=174)



The groups generally established good relations to their supervisor and each other. Few had bad experiences that significantly affected work atmosphere.

- *"... I have never before experienced such good working relationship!"*
- *" We could almost never reach him [the supervisor]... he always seemed irritated"*

Conclusion and perspectives

The students' comments reveal a diverse range of mostly great, but also a few unfortunate experiences. The latter was often due to poor relations in the group or with the supervisor.

Students are **excited** to work with a project of their own choice and interest as well as the **opportunity** to influence the project work. Some students feel unsure and hence **insecure** of the supervisor's expectancies to their academic competences. Furthermore, differing interpretations of course guidelines can lead to some groups feeling unfairly treated. This might be a consequence of the large number of supervisors involved in the course.

Stressing the importance of **motivational elements** as well as inviting students into the science community, it is possible to foster students' motivation.

References

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